## ABSTRACT OF THE DISCLOSURE

A sound insulation system for use with a vehicle includes a layer of fibrous padding material having a first surface and an opposite second surface. The first surface includes multiple spaced apart recesses. The second surface includes a substantially flat surface portion that extends over two adjacent recesses. The multiple recesses are configured to define multiple voids when the sound insulation system is mounted in the vehicle, thereby enhancing acoustical performance of the sound insulation system.